

In the claims:

1. (Currently Amended) A distillation process comprising providing a feed stream comprising a mixture of a lower boiling point solvent and a higher boiling point target compound to an evaporator, flashing off from said mixture a multi-component vapor containing said solvent and said target at a temperature of said mixture below the boiling point of said target, separating said target compound from said multi-component vapor, and maintaining said temperature of said mixture in said evaporator by providing to said evaporator a dilutive solvent comprising additional amounts of said solvent ~~without substantial amounts of said target to said evaporator to maintain the boiling point of said mixture below that of said target.~~
2. (Previously presented) A process according to claim 1 wherein said target is mixed with a non-volatile contaminate or a contaminate having a boiling point higher than that of said target, which remains in said evaporator.
3. (Previously presented) A process according to claim 2 further comprising the step of providing said multi-component vapor to means for separating said target from said solvent.
4. (Original) A process according to claim 3 wherein said means for separating comprises a distillation tower.
5. (Original) A process according to claim 3 wherein said solvent is water and said target is ethylene glycol.
6. (Original) A process according to claim 3 wherein said target is an amine.
7. (Cancelled)
8. (Currently amended) A process according to claim 1 further comprising removing bottoms from said evaporator, cooling said bottoms and separating to allow sediment to separate from supernatant, and adding said supernatant to said evaporator.
9. (New) A target compound obtained by a process comprising providing to an evaporator a mixture of a lower boiling point solvent and said target compound, wherein the boiling point of said target compound is higher than that of said solvent, flashing off from said mixture a multi-component vapor containing said solvent and said

target compound at a temperature of said mixture that is below the boiling point of said target compound, providing a feed stream of said mixture to said evaporator, maintaining said temperature of said mixture by providing to said evaporator a dilutive solvent comprising additional amounts of said solvent, and separating said target compound from said solvent to provide said target compound.

10. (New) A target compound according to claim 9 comprising ethylene glycol.

11. (New) A target compound according to claim 9 comprising an amine.

12. (New) A method for separating a target compound from a mixture of said target compound and a solvent, wherein the boiling point of said target compound is higher than the boiling point of said solvent, said method comprising heating said mixture to a temperature lower than the boiling point of said target compound to provide a multi-component vapor comprising said target compound and said solvent, providing said multi-component vapor to a distillation column, condensing vapors passing up said distillation column to provide a condensed stream, and providing said condensed stream to said mixture.

13. (New) A method according to claim 12 comprising providing an amount of said condensed stream to said mixture adequate to maintain the boiling point of said mixture at said temperature.

14. (New) A method according to claim 12 wherein said solvent is water and said target compound is ethylene glycol.

15. (New) A method according to claim 14 wherein said temperature is about 260 degrees Fahrenheit.

16. (New) Apparatus comprising:

evaporator means for evaporating a mixture of lower boiling components and higher boiling components received as a liquid in a feed stream;

distillation means for separating lower boiling components from higher boiling components received from said evaporator means; and

means for providing said lower boiling components from said distillation means to said evaporator.

17. (New) Apparatus according to claim 16 wherein said means for providing comprises a pump for supplying said lower boiling components to said evaporator.

18. (New) Apparatus according to claim 17 further comprising a re-circulator for re-circulating said mixture in said evaporator means and said means for providing further comprises connection from said pump to said re-circulator.